IN THE CLAIMS:

1. (Currently Amended) A method comprising:

a) decoding consecutive frames of ~~encoded~~ wavetable data comprising samples in an attack section and samples in a loop section starting with a first frame up to a frame which includes a start of said loop section which samples of said loop section are reuseable for a playback in a loop as often as required, said consecutive frames encoded interdependently to exploit correlations between audio samples with respect to neighborhood frames for increased compression performance and reduced memory requirements;

b) saving an internal state of said audio decoder before starting to decode said frame including the start of said loop section a first time;

c) decoding subsequently all frames comprising samples of said loop section and providing said decoded frames for further processing for ~~a~~ playback; and

d) at least if said samples of said loop section are distributed to more than one frame, restoring said internal state of said audio decoder, saved at step b), and continuing with step c) as often as required, each time starting from the saved internal state so that instead of starting with an internal state of the decoder at the end of the loop section, each decoding of said loop section starts with a same correlation with respect to neighborhood frames as saved the first time, so as to always resemble a same stationary waveform in said playback.

2. (Original) The method according to claim 1, wherein each decoded frame is stored for said further processing by substituting a preceding frame in a storage component, and wherein a respective next frame is only decoded at a time when samples of a further frame are needed.

3. (Currently Amended) A device comprising:

an audio decoder for receiving wavetable data on a frame-by-frame basis, each frame comprising at least one sample, wherein said ~~encoded~~ wavetable data comprises samples in an attack section and samples in a loop section, which samples of said loop section are reuseable for a playback in a loop as often as required, said frames encoded

interdependently to exploit correlations between audio samples with respect to neighborhood frames for increased compression performance and reduced memory requirements;

a storage component for saving an internal state of said audio decoder; and

a controller, which controller causes said audio decoder to save said internal state of said audio decoder into said storage component before decoding a next frame, if said next frame includes a start of a loop section, which controller causes said audio decoder to decode subsequently all frames comprising samples of said loop section and to provide said decoded frames for further processing for ~~a~~ playback, and which controller causes said audio decoder as often as required to restore said internal state saved in said storage component and to repeat decoding subsequently all frames comprising said samples of said loop section, each repeated decoding starting from the saved internal state so that instead of starting with an internal state of the decoder at the end of the loop section, each repeated decoding of said loop section starts with a same correlation with respect to neighborhood frames as saved the first time, so as to always resemble a same stationary waveform in said playback.

4. (Original) The device according to claim 3, further comprising a second storage component for storing the respective last decoded frame provided by said audio decoder and for providing samples of a respectively stored frame for further processing for a playback.

5. (Currently Amended) A wavetable based sound synthesis system comprising:

an audio encoder for encoding wavetable data on a frame-by-frame basis and for providing resulting encoded wavetable data for storage in a first storage component, said frames encoded interdependently to exploit correlations between audio samples with respect to neighborhood frames for increased compression performance and reduced memory requirements;

an audio decoder for decoding wavetable data provided by said first storage component on a frame-by-frame basis, each frame comprising at least one sample, wherein said encoded wavetable data comprises samples in an attack section and samples in a loop section, which samples of said loop section are reuseable for a playback in a loop as often as required;

a second storage component for saving an internal state of said audio decoder; and

a controller, which controller causes said audio decoder to save said internal state of said audio decoder into said second storage component before decoding a next frame, if said next frame includes a start of a loop section, which controller causes said audio decoder to decode subsequently all frames comprising samples of said loop section and to provide said decoded frames for further processing for a playback, and which controller causes said audio decoder as often as required to restore said internal state saved in said storage component and to repeat decoding subsequently all frames comprising said samples of said loop section, each repeated decoding starting from the saved internal state so that instead of starting with an internal state of the decoder at the end of the loop section, each repeated decoding of said loop section starts with a same correlation with respect to neighborhood frames, so as to always resemble a same stationary waveform in said playback.

6. (Currently Amended) A software program product in which a software code for supporting a wavetable based sound synthesis is stored, for which wavetable based sound synthesis ~~encoded~~ wavetable data is encoded in consecutive frames and is decoded by means of an audio decoder on a frame-by-frame basis, each frame comprising at least one sample, said consecutive frames encoded interdependently to exploit correlations between audio samples with respect to neighborhood frames for increased compression performance and reduced memory requirements, wherein said ~~encoded~~ wavetable data comprises samples in an attack section and samples in a loop section, which samples of said loop section are reuseable for a playback in a loop as often as required, said software code realizing the following when running in a processing component which is connected to said audio decoder:

causing said audio decoder to save an internal state of said audio decoder before decoding a next frame, if said next frame includes a start of a loop section for a first time;

causing said audio decoder to decode subsequently all frames comprising samples of said loop section and to provide said decoded frames for further processing for a playback; and

causing said audio decoder as often as required to restore said saved internal state and to repeat decoding subsequently all frames comprising said samples of said loop

section, each time starting from the saved internal state so that instead of starting with an internal state of the decoder at the end of the loop section, each decoding of said loop section starts with a same correlation with respect to neighborhood frames as saved the first time, so as to always resemble a same stationary waveform in said playback.

Claims 7 – 15 (Cancelled)

16. (Previously Presented) The method of claim 1, wherein said wavetable data is encoded either independently or not with respect to neighborhood frames wherein interdependence between said neighborhood frames is reflected together with other control information in a number of variables that constitute said internal state of said audio decoder.

17. (Previously Presented) The method of claim 16, wherein said internal state of said audio decoder keeps track of a correlation between samples.

18. (Previously Presented) The method of claim 17, wherein said decoding is a decoding of one sample at a time and said decoded frames depend not only on an encoded input sample value but also on said internal state of said decoder.

19. (Previously Presented) The method of claim 18, wherein said frames have a length of only one sample.

20. (Previously Presented) The method of claim 1, wherein said internal state of said audio decoder keeps track of a correlation between samples.

21. (Previously Presented) The method of claim 20, wherein said decoding is a decoding of one sample at a time and said decoded frames depend not only on an encoded input sample value but also on said internal state of said decoder.

22. (Previously Presented) The method of claim 21, wherein said frames have a length of only one sample.

23. (Previously Presented) The device of claim 3, wherein said wavetable data is encoded either independently or not with respect to neighborhood frames wherein interdependence between said neighborhood frames is reflected together with other control information in a number of variables that constitute said internal state of said audio decoder.

24. (Previously Presented) The device of claim 23, wherein said internal state of said audio decoder keeps track of a correlation between samples.

25. (Previously Presented) The device of claim 24, wherein said decoding is a decoding of one sample at a time and said decoded frames depend not only on an encoded input sample value but also on said internal state of said decoder.

26. (Previously Presented) The device of claim 25, wherein said frames have a length of only one sample.

27. (Previously Presented) The device of claim 3, wherein said internal state of said audio decoder keeps track of a correlation between samples.

28. (Previously Presented) The device of claim 27, wherein said decoding is a decoding of one sample at a time and said decoded frames depend not only on an encoded input sample value but also on said internal state of said decoder.

29. (Previously Presented) The device of claim 23, wherein said frames have a length of only one sample.

30. (Previously Presented) The method of claim 1, wherein said internal state of said audio decoder evolves during the decoding process so that the internal state of the audio decoder at the end of the loop is different from its state at the beginning of the loop.

31. (Previously Presented) the device of claim 3, wherein said internal state of said audio decoder evolves during the decoding process so that the internal state of the audio decoder at the end of the loop is different from its state at the beginning of the loop.

32. (Previously Presented) the system of claim 5, wherein said internal state of said audio decoder evolves during the decoding process so that the internal state of the audio decoder at the end of the loop is different from its state at the beginning of the loop.

33. (Previously Presented) The software program product of claim 6, wherein said internal state of said audio decoder evolves during the decoding process so that the internal state of the audio decoder at the end of the loop is different from its state at the beginning of the loop.